

PROJECT TITLE : CIGARETTE DEVELOPMENT 3
PERIOD COVERED : SEPTEMBER 28 - NOVEMBER 25, 1981
WRITTEN BY : Nagel-P. (PHN)

391 BUBBLE GR

Objective

To develop an American blend-type cigarette in the LTN sector.

Summary

Following the extremely important anti-smoking campaign led by the Minister of Social Welfare in Greece, our competitors recently launched several LTN brands supported by a lively publicity campaign centred on low tar and SN figures. In reaction to these developments, it is planned to launch a light MARLBORO and MERIT which should be produced by using the non-tobacco materials available in the EEC market only.

Description of samples and results

Tobacco blend

The tobacco blend used No. GR0239101N10 was processed in two steps :

- 1) The "basic blend", comprising 60 % of the total blend and containing the total Burley amount, was prepared at FTR. After having passed through the vacu-dyne, the Burley tobacco was treated according to MARLBORO specifications, receiving ML Burley casing and ML Burley top flavour, and was mixed with the "strip" part of the basic blend in the "Blending Box". The tobacco leaf blend thus obtained was dried down to 13 % MC and shipped to Papastratos, Greece in cardboard boxes.
- 2) The remaining 40 %, consisting of local tobaccos, was added and the Pre-Cutting and After-Cutting MARLBORO solutions were sprayed on the total blend. 200 Kg of the finished cut-filler was sent back to FTR for cigarette development.

Cigarette prototypes

The construction of the prototypes produced, in which blend No GR0239101N10 was incorporated, followed the MLZ01 cigarette-making specifications. Apart from the standard 110-6 cigarette paper, another one, Pela S 130 M, was tested on this cigarette.

The version using the latter was chosen as the candidate for the possible launch.

For a description of the prototypes, see the table on the next page.

PROJECT NAME

B U B B L E G R

PROJECT NO

3 9 1

PROTOTYPE NO

1 P

2 P

BLEND NO		GR0239101N10 (A)	GR0239101N10 (A)
TA	%	1.29	1.36
NITRATE-NITROGEN	%	0.26	0.28
REDUCING SUGARS	%	8.9	9.5

FORMAT : DIAMETER:	mm	7.95	7.95
FILTER LENGTH	mm	25	25
CIGARETTE LENGTH	mm	84	84

TOTAL WEIGHT	mg/cig.	1118	1119
TOBACCO WEIGHT AT 12 % O.V.	mg/cig.	816	815
CIGARETTE RTD	mm WG	119	121
DILUTION	%	32	32

CIGARETTE PAPER	110-6	Pela S 130 M
TIPPING PAPER	Z 4 / 120	Z 4 / 120

FILTER : TYPE	Simple (MERPC-100)	Simple (MERPC-100)	
TOW	2.5 Y / 48'000	2.5 Y / 48'000	
PAPER	FU-POV 40 L	FU-POV 40 L	
RTD	mm WG	100	104

TAR	mg/cig.	7.8	8.0
SN	mg/cig.	0.56	0.54
CO	mg/cig.	9.8	11.3
NO	mg/cig.	0.20	0.19
Puff count		9.2	8.8

THE CIGARETTES ARE SMOKED ON A PM 20 PORTS.

26.11.1981

0000143994

Objective

To improve the taste quality of MURATTI EXTRA (MAG) while decreasing the smoke delivery.

Tar : 3.0 mg/cig.

SN : 0.3 mg/cig.

CO : less than 5 mg/cig.

Puff count : more than or equal to 7.5

Format : 7.95 / 25 / 84

Summary

Following the trend towards milder products (especially 0 - 5 mg tar), the Swiss Marketing people asked for a development of the new MAG with 3 mg tar (currently with 5 mg) while keeping the same good taste impact.

Using new tobacco blend No CH0427103N02, containing 27 % of ET, trials were carried out with several double filter combinations (the PSP filter is currently used). No positive results were obtained as far as the organoleptic qualities were concerned, as some impact was lacking during the first puffs.

Therefore, it was agreed to use a triple filter for this product. Such a filter construction, which is not yet commonly used in the cigarette industry, gives a possibility to use the optimal combination of filtering materials in order to maximize retention capacity and still have a reasonable draw-resistance (RTD). On the practical side, this means a cigarette delivering good taste with the first puffs and having low smoke figures. Using tobacco blend No CH 0427105N02 (corresponding to the above-mentioned No CH0427103N02 in which the reconstituted tobaccos, comprising 15 % of the total blend, were replaced by improved stems), triple filters of different tow item combinations were tested.

Of all the prototypes produced, No 95 P was selected and furthermore its flavoured version, No 98 P, was produced. Both prototypes were tested against current MAG in a blind (cigarettes without any identification) product test whose results did not show any clear preference for one rather than for the other products by each of the different groups of smokers (men, women, MAA, MAG smokers, etc.).

The smokers of the standard MAG missed the special dry taste which is probably due to the additives used in the chamber of a PSP filter (activated charcoal, silicagel, respectively 40% and 60%). For the above-mentioned reasons, the current MAG cannot be taken from the market and substituted by one of the two prototypes.

The development work had to be re-started with the same objective, but based on a PSP filter.

Description of samples and results

A series of prototypes, deriving from candidate No 98, were produced using the standard PSP filter of the MAG and different porosity tipping papers.

Prototype No 107 was selected as being within the target taste and analytical objectives.

The cigarette is being product tested against MAG01.

Please find on the next pages :

- Description and main physical and analytical characteristics of the prototypes mentioned.
- Designs of PSP and Triple Filter.

P. Magd

PHN/cap/NOVEMBER 26, 1981

0000143996

PROJECT NAME : C O L O R A D O

PROJECT NO : 271

PROJECT LEADER : PHN

DATE : November 26, 1981

PROTOTYPE NO

MAG 01 (C 45)

95 T (N 36)

98 T (V 63)

BLEND NO

039-271MA002

CH0427105N02 (A)

CH0427105N02 (C)

TA	%	1.46	1.58	1.63
NITRATE-NITROGEN	%	0.17	0.21	0.19
REDUCING SUGARS	%	12.2	8.7	8.6
FORMAT : DIAMETER	mm	7.95	7.95	7.95
FILTER LENGTH	mm	25	25	25
CIGARETTE LENGTH	mm	84	84	84
TOTAL WEIGHT	mg/cig.	1187	919	923
TOBACCO WEIGHT AT 12 % O.V.	mg/cig.	764	599	596
CIGARETTE RTD	mm WG	118	82	77
DILUTION	%	37	63	65
CIGARETTE PAPER		W 100	W 70	W 70
TIPPING PAPER		Z4 / 120	6 x M. 0.3 . 3.5	6 x M. 0.3 . 3.5
FILTER : TYPE		PSP	TRIPLE	TRIPLE
TOW		2.5 Y / DICO	2.5 Y / 48 - 5.0 X / 40 - 2.5 Y / 55	
ADDITIVE		ACPG	Charcoal Pilot	
PAPER		Ecusta 634	FU-POV 100	FU-POV 100
RTD	mm	116	104	100
TAR	mg/cig.	4.6	3.0	2.8
SN	mg/cig.	0.35	0.24	0.21
CO	mg/cig.	9.5	4.5	3.5
NO	mg/cig.	0.13	0.07	0.07
PUFF COUNT		8.2	7.6	7.9

THE CIGARETTES ARE SMOKED ON A PM 20 PORTS.

0000143997

PROJECT NAME		COLORADO	COLORADO
PROJECT NO		271	271
PROTOTYPE NO		MAG 01 (M 42)	107 T (H 24)
BLEND NO		039-271MA002	CH0427105N02
VERSION		A	C
TA	%	1.45	1.60
NITRATE-NITROGEN	%	0.14	0.25
REDUCING SUGARS	%	10.7	8.2
FORMAT : DIAMETER	mm	7.95	7.95
FILTER LENGTH	mm	25	25
CIGARETTE LENGTH	mm	84	84
TOTAL WEIGHT	mg/cig.	1142	1023
TOBACCO WEIGHT AT 12 % O.V.	mg/cig.	743	606
CIGARETTE RTD	mm WG	113	100
DILUTION	%	39	56
COMPRESSIBILITY AT 12 % O.V.	mm	2.90	2.87
CIGARETTE PAPER		W. 100	W. 70
TIPPING PAPER		Z4/120	4 x M. 0.5 . 3.5
FILTER : TYPE		PSP (MAG-100) -----	
TOW		ACETATE / CAF -----	
ADDITIVE		CHARCOAL / POLYGEL -----	
PAPER		ECUSTA 634 -----	
RTD	mm WG	114	114
TAR	mg/cig.	4.8	3.4 (3.4)
SN	mg/cig.	0.36	0.27 (0.25)
CO	mg/cig.	9.9	6.0 (4.9)
NO	mg/cig.	0.13	0.12 (0.11)
PUFF COUNT		8.1	8.0 (7.8)

THE CIGARETTES ARE SMOKED ON A PM 20 PORTS.

() : ANALYTICAL FIGURES OF PROTOTYPE 107 P.

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 * TRIPLE FILTER *
 * COLORADO *

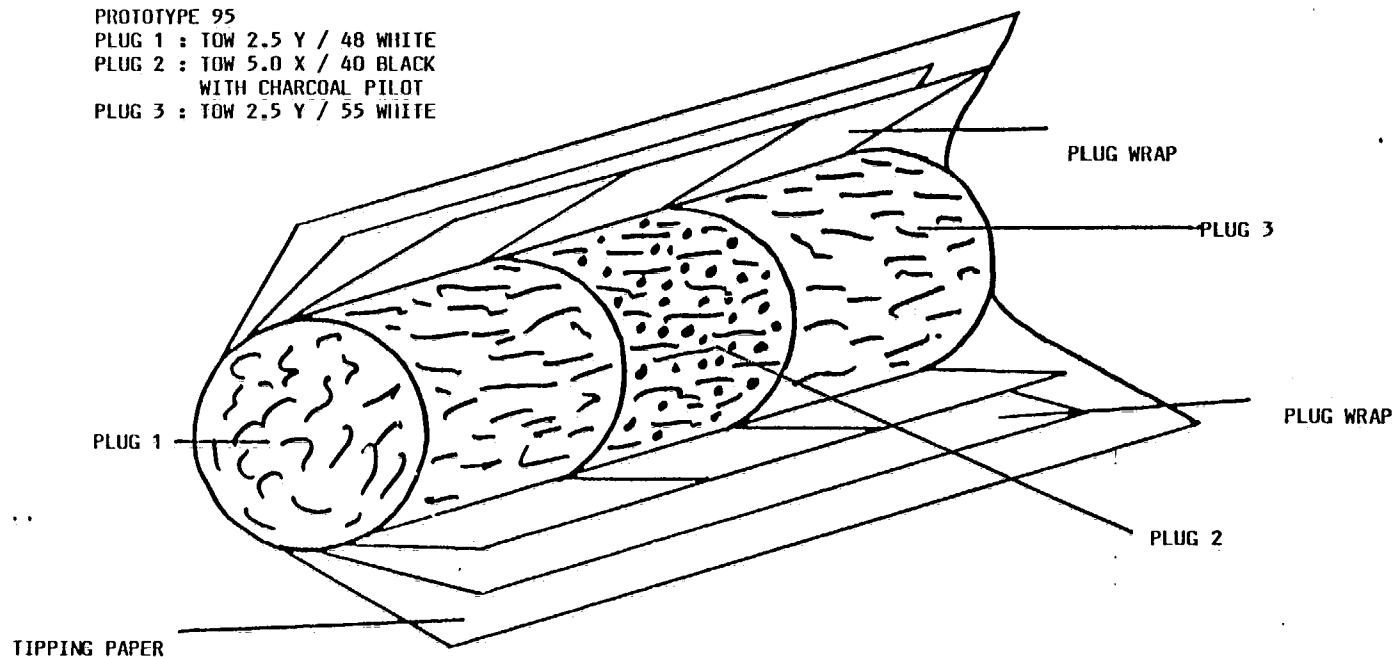
LEGEND

PROTOTYPE 95

PLUG 1 : TOW 2.5 Y / 48 WHITE

PLUG 2 : TOW 5.0 X / 40 BLACK
 WITH CHARCOAL PILOT

PLUG 3 : TOW 2.5 Y / 55 WHITE



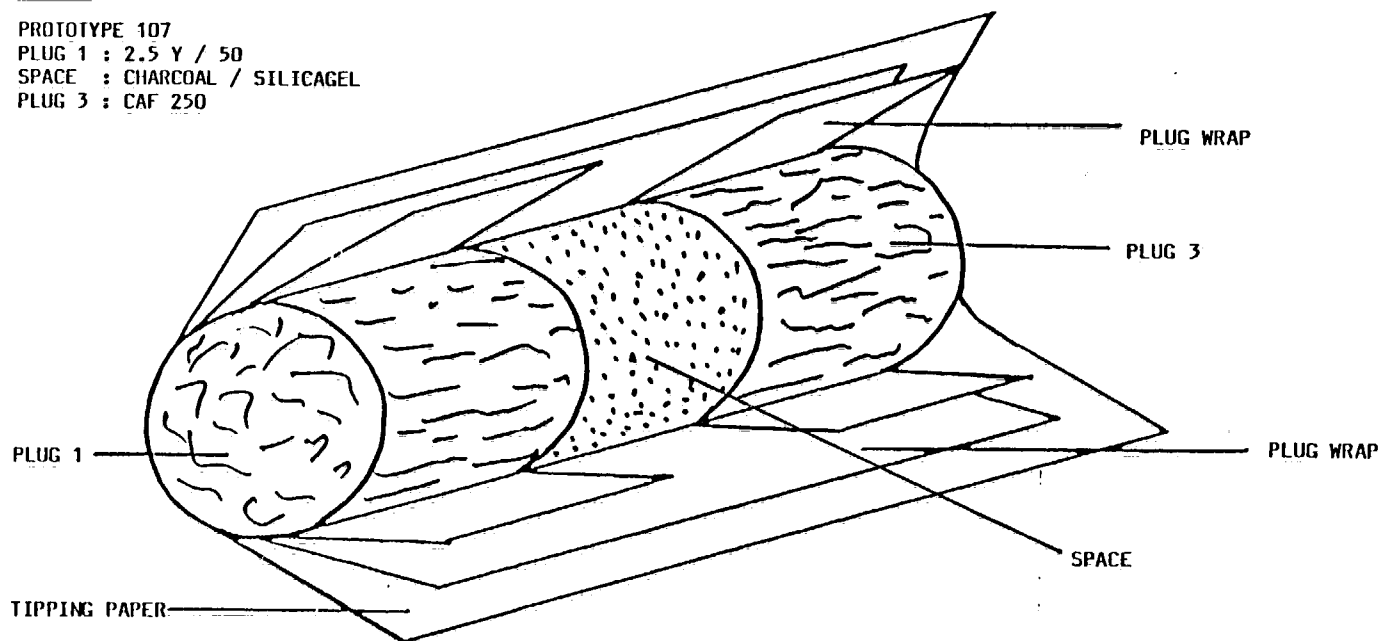
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 * P S P F I L T E R *
 * C O L O R A D O *

LEGEND

PROTOTYPE 107
 PLUG 1 : 2.5 Y / 50
 SPACE : CHARCOAL / SILICAGEL
 PLUG 3 : CAF 250



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